

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow. Claims 1-11 have been rejected by the Examiner. Claims 1-8 and 10 have been cancelled without prejudice and Claims 9 and 11 have been amended. New Claims 12-20 have been added to present claims of varying scope. No new matter has been added. Accordingly, Claims 9 and 11-20 will be pending in the present application upon entry of this Reply and Amendment.

A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

Claim Rejections – 35 U.S.C. § 101

On page 2 of the Office Action, the Examiner rejected Claims 1-8 and 10 as being directed to non-statutory subject matter under 35 U.S.C. § 101. While the Applicant respectfully disagrees with this rejection, certain claims have been cancelled or amended in order to overcome this rejection and to allow prosecution on the merits to continue.

Specifically, the Applicant notes that Claims 9 and 11 were not rejected under 35 U.S.C. § 101. Accordingly, Claims 1-8 and 10 have been cancelled, Claim 11 has been amended to include limitations originally included in Claim 10, and new Claims 12-20 have been added to depend from Claim 9.

Accordingly, the Applicants submit that the rejection under 35 U.S.C. § 101 has been overcome.

Claim Rejections – 35 U.S.C. § 102

On page 3 of the Office Action, the Examiner rejected Claims 1-5 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent Application Publication No. 2002/0101243 to Mentgen et al.

Claims 1-5 have been cancelled without prejudice as described above. Accordingly, the rejection of Claims 1-5 under 35 U.S.C. § 102(b) is moot.

Claim Rejections – 35 U.S.C. § 103

1. Mentgen et al. in view of Okada et al.

On page 4 of the Office Action, the Examiner rejected Claim 9 as being unpatentable over Mentgen et al. in view of U.S. Patent No. 5,949,217 to Okada et al. under 35 U.S.C. § 103(a).

Claim 9 is in independent form and recites a “monitoring device for energy storage batteries” comprising, in combination with other elements, “computation device” that is “designed to carry out a method comprising: determining the charge drawn as a function of an exponential function with a time constant, wherein the time constant is defined at least as a function of the energy storage battery type and of the temperature of the electrolyte.” Claims 12-20 depend from Claim 9.

The “monitoring device” recited in independent Claim 9 would not have been obvious in view of Mentgen et al., alone or in any proper combination with Okada et al. under 35 U.S.C. § 103(a). Mentgen et al. alone or in any proper combination with Okada et al. does not disclose, teach or suggest a “computation device” that is “designed to carry out a method comprising: determining the charge drawn as a function of an exponential function with a time constant, wherein the time constant is defined at least as a function of the energy storage battery type and of the temperature of the electrolyte.”

In contrast, Mentgen et al. is directed to a “Method and Device for Determining the Charge Status of a Battery” as describes the calculation of a time constant paragraph [0018] as follows (with underlining added for emphasis):

[0018] Value T_R corresponds to the time constant of the transient response of no-load voltage U_0 until it reaches open-circuit voltage U_R which depends on the battery temperature and its history.

No mention is made of taking into account the electrolyte temperature of the battery in Mentgen et al. in the calculation of T_R . Further, no mention is made of taking into account the battery type, although the Examiner does indicate on page 7 of the Office Action that

“battery temperature history...has a direct or indirect relation with the battery type and temperature.” The Applicant respectfully disagrees with this assertion, as there is nothing in Mentgen et al. that would teach or suggest that “battery history” has a “direct or indirect relation with the battery type” as suggested by the Examiner.

Okada et al. also does not disclose taking into account battery electrolyte temperature or battery type. Okada et al. is directed to a “Method to Determine Remaining Capacity of a Rechargeable Battery” and discloses a “computation circuit” that computes rechargeable battery discharge capacity” (col. 3, lines 18-31).

To transform the subject matter disclosed in Mentgen et al. and Okada et al. into a “monitoring device” (as recited in Claim 9) would require still further modification, and such modification is taught only by the Applicants’ own disclosure. The suggestion to make the combination of Mentgen et al. and Okada et al. has been taken from the Applicants’ own specification (using hindsight), which is improper.

The “monitoring device” recited in independent Claim 9, considered as a whole, would not have been obvious in view of Mentgen et al. and/or Okada et al.. The rejection of Claim 9 over Mentgen et al. in view of Okada et al. under 35 U.S.C. § 103(a) is improper. Therefore, Claim 9 is patentable over Mentgen et al. in view of Okada et al..

The Applicants respectfully request withdrawal of the rejection of Claim 9 under 35 U.S.C. § 103(a).

2. **Mentgen et al. in view of Hirzel**

On page 5 of the Office Action the Examiner rejected Claims 10-11 as being unpatentable over Mentgen et al. in view of U.S. Patent No. 5,381,096 to Hirzel under 35 U.S.C. § 103(a).

As described above, Claim 10 has been cancelled without prejudice. The comments below are therefore directed only to Claim 11 as amended herein.

Mentgen et al. is described above. Hirzel is directed to a “Method and Apparatus for Measuring the State-of-Charge of a Battery System” and discloses the use of a “simplified circuit model equivalent of a storage battery” that includes “as components a parallel capacitor 12 and resistor 14, in series configuration with a second large capacitor” (column 4, lines 19-22).

Claim 11 is in independent form and recites a “computer program” that comprises, among other elements, “computer program code” that is “designed to carry out a method . . . comprising: determining the charge drawn by an energy storage battery as a function of an exponential function with a time constant, wherein the time constant is defined at least as a function of the energy storage battery type and of the temperature of the electrolyte.”

As described above, Mentgen et al. does not teach or suggest a time constant that is defined as a function of the energy storage battery type and of the temperature of the electrolyte. Hirzel also does not teach or suggest such a time constant.

The “computer program” recited in independent Claim 11 would not have been obvious in view of Mentgen et al., alone or in any proper combination with Hirzel under 35 U.S.C. § 103(a). Mentgen et al. alone or in any proper combination with Hirzel does not disclose, teach or suggest a “computer program code” that is “designed to carry out a method” that includes “determining the charge drawn by an energy storage battery as a function of an exponential function with a time constant, wherein the time constant is defined at least as a function of the energy storage battery type and of the temperature of the electrolyte.”

To transform the subject matter disclosed in Mentgen et al. and Hirzel into a “computer program” (as recited in Claim 11) would require still further modification, and such modification is taught only by the Applicants’ own disclosure. The suggestion to make the combination of Mentgen et al. and Hirzel has been taken from the Applicants’ own specification (using hindsight), which is improper.

The “computer program” recited in independent Claim 11, considered as a whole, would not have been obvious in view of Mentgen et al. and/or Hirzel. The rejection of Claim

11 over Mentgen et al. in view of Hirzel under 35 U.S.C. § 103(a) is improper. Therefore, Claim 11 is patentable over Mentgen et al. in view of Hirzel.

The Applicants respectfully request withdrawal of the rejection of Claim 11 under 35 U.S.C. § 103(a).

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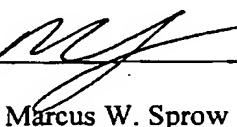
It is submitted that each outstanding objection and rejection to the Application has been overcome, and that the Application is in a condition for allowance. The Applicants request consideration and allowance of all pending claims.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 06-1447. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 06-1447. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. § 1.136 and authorizes payment of any such extensions fees to Deposit Account No. 06-1447.

Respectfully submitted,

Date 7/19/06

By 

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